

Friends of the Lower Wisconsin Riverway (FLOW)

FLOW as an environmental advocacy organization for the protection of the Lower Wisconsin State Riverway



Lower Wisconsin State Riverway



**FLOW also a friends group for WDNR
and Lower Wisconsin State Riverway
Board**



Rare & Unusual Fishes of the



shovelnose sturgeon 3.5 ft.

LOWER WISCONSIN RIVER



HOME TO 98 SPECIES OF FISH, THE LOWER WISCONSIN RIVER is one of the most ecologically diverse large river systems in the United States. This section of the river flows from Prairie du Sac west across the unglaciated Driftless Area to the Mississippi River.

THE DIVERSE ARRAY OF FISH AND OTHER ANIMALS in this protected 92-mile Lower Wisconsin State Riverway reflects the intricate connections of the free-flowing river with its floodplain lakes.

SHIFTING SAND MAKES A HARSH ENVIRONMENT FOR MANY ANIMALS but important niches for others. The *western sand darter* dives into the sand to escape predators while the primitive armored mayfly burrows near the sandy shores. The river hosts many unusual and rare fish, such as the *shoal chub*, *crystal darter*, *bullhead minnow*, *starhead topminnow*, *primitive lampreys*, *gars*, *paddlefish*, and *shovelnose sturgeon*.



slough pickerel 15 in.



longnose gar 4.5 ft.



highfin carp sucker 10 in.



flathead catfish 4.5 ft.



sauger 8 in.



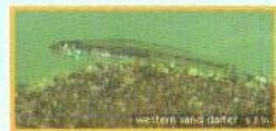
bowfin 8.5 ft.



blue sucker 8.5 ft.



paddlefish 5.5 ft.



western sand darter 9.5 in.



weed thiner 9 in.



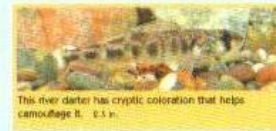
shiner perch 4 in.



shoal chub 3 in.

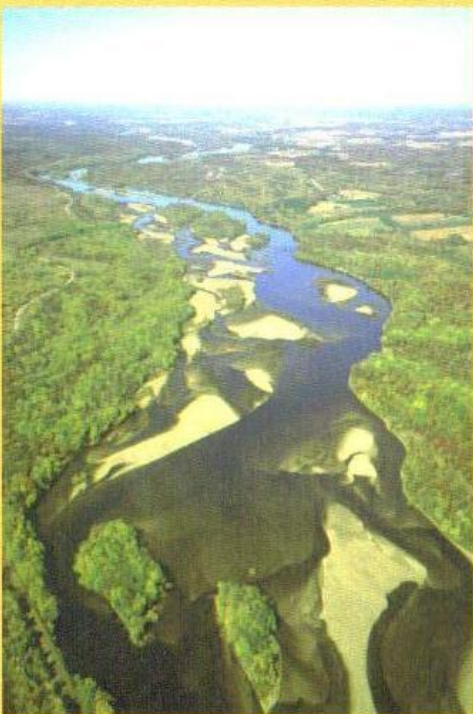


bullhead minnow 4.5 in.



This river darter has cryptic coloration that helps camouflage it. 2.5 in.

RIVER HABITATS CHANGE RAPIDLY as flowing waters build and reduce sandbars. Sometimes sandbars survive to become forested islands. River flow becomes braided around the islands where fallen trees line the shore and become magnets for insects, birds, turtles and fish.



BACKWATER SLOUGHS AND OXBOWS FORM when braided channels are cut off from the river. They are nurseries for some river fish, and home for others that avoid fast currents. The fishes in the sloughs and oxbows depend on clean waters that arise from springs and tributaries far beyond the floodplain.

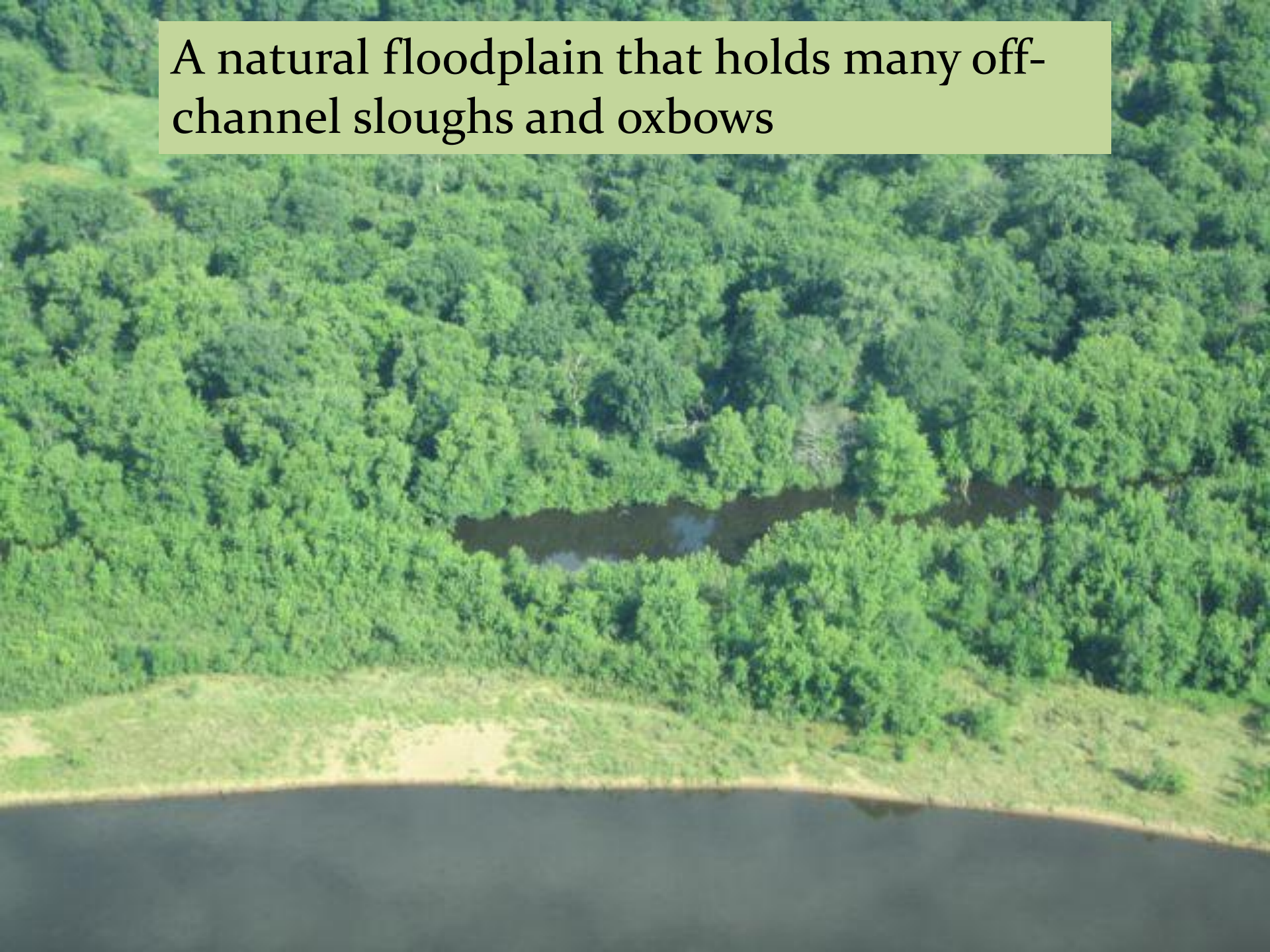



Slough



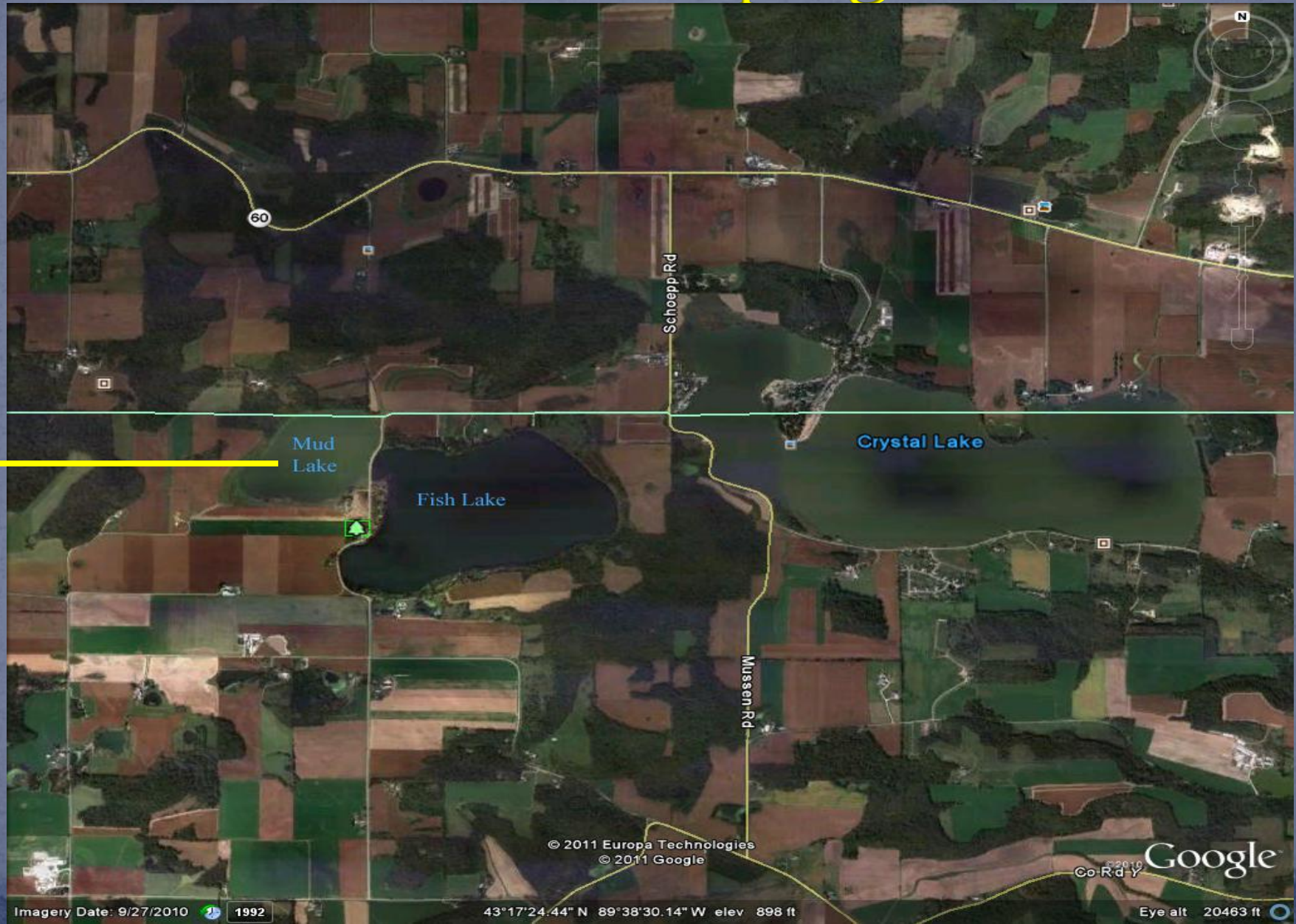
starhead topminnow 3 in.

A natural floodplain that holds many off-channel sloughs and oxbows



- 
- **Lake District polluted water pumping**
 - **Contaminated groundwater near Spring Green and polluted oxbows**
 - **Contaminated groundwater at BAAP**
 - **New wastewater discharge to Pine River**
 - **Planning and outreach on AIS issues**


Lake District Pumping to River











Armed with our own water quality study
that documented impacts

(water quality criteria violations, transfer
of fish, nuisance algal growths, loss of
rare mussel bed, impacts to aquatic
insects and effluent limits violations)

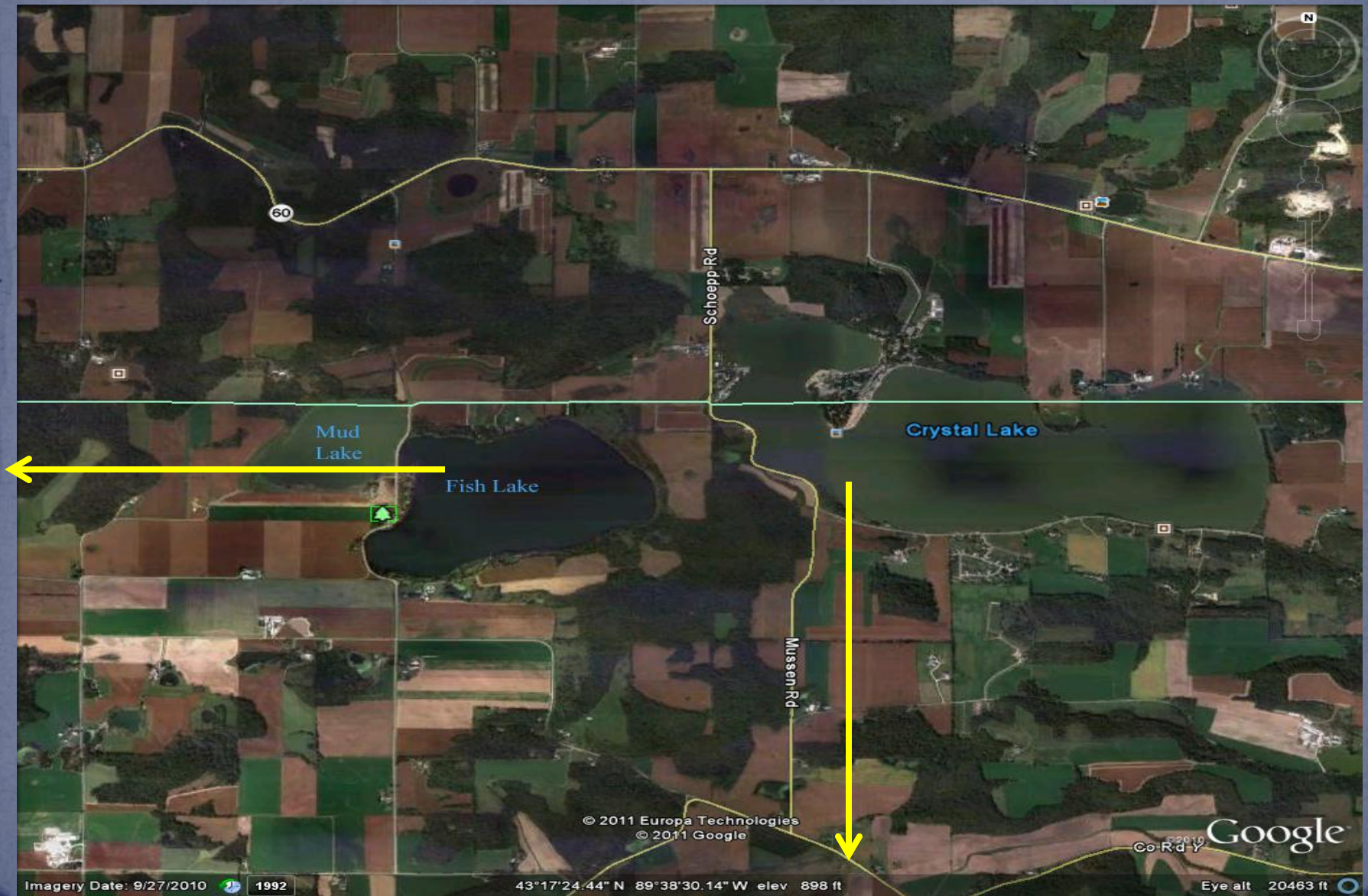
and

3 contested case hearings scheduled

(we used administrative rules to
our advantage)

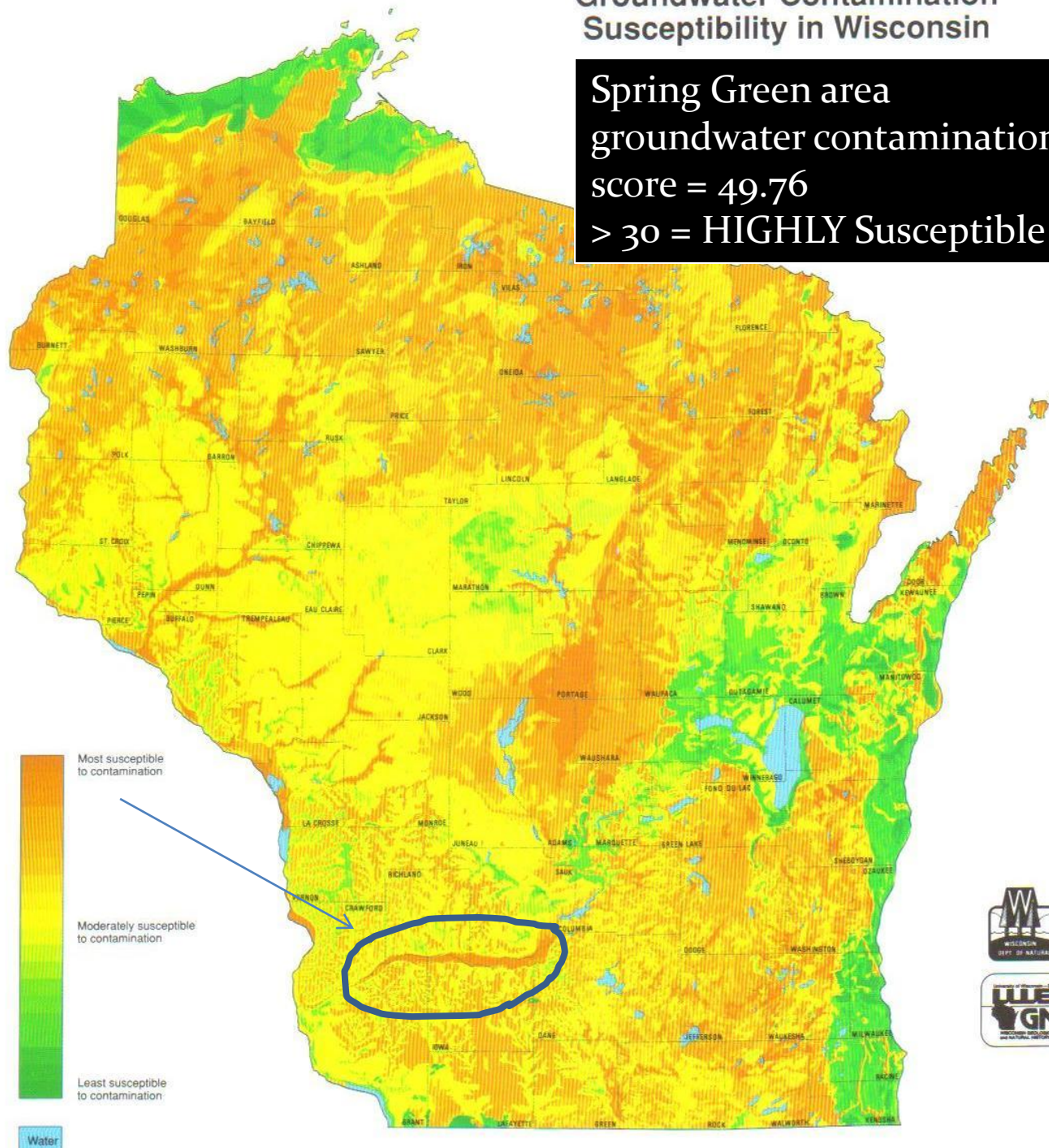
FLOW hired MEA to help negotiate a
settlement at \$0.00 cost to FLOW

Lake District Pumping to River

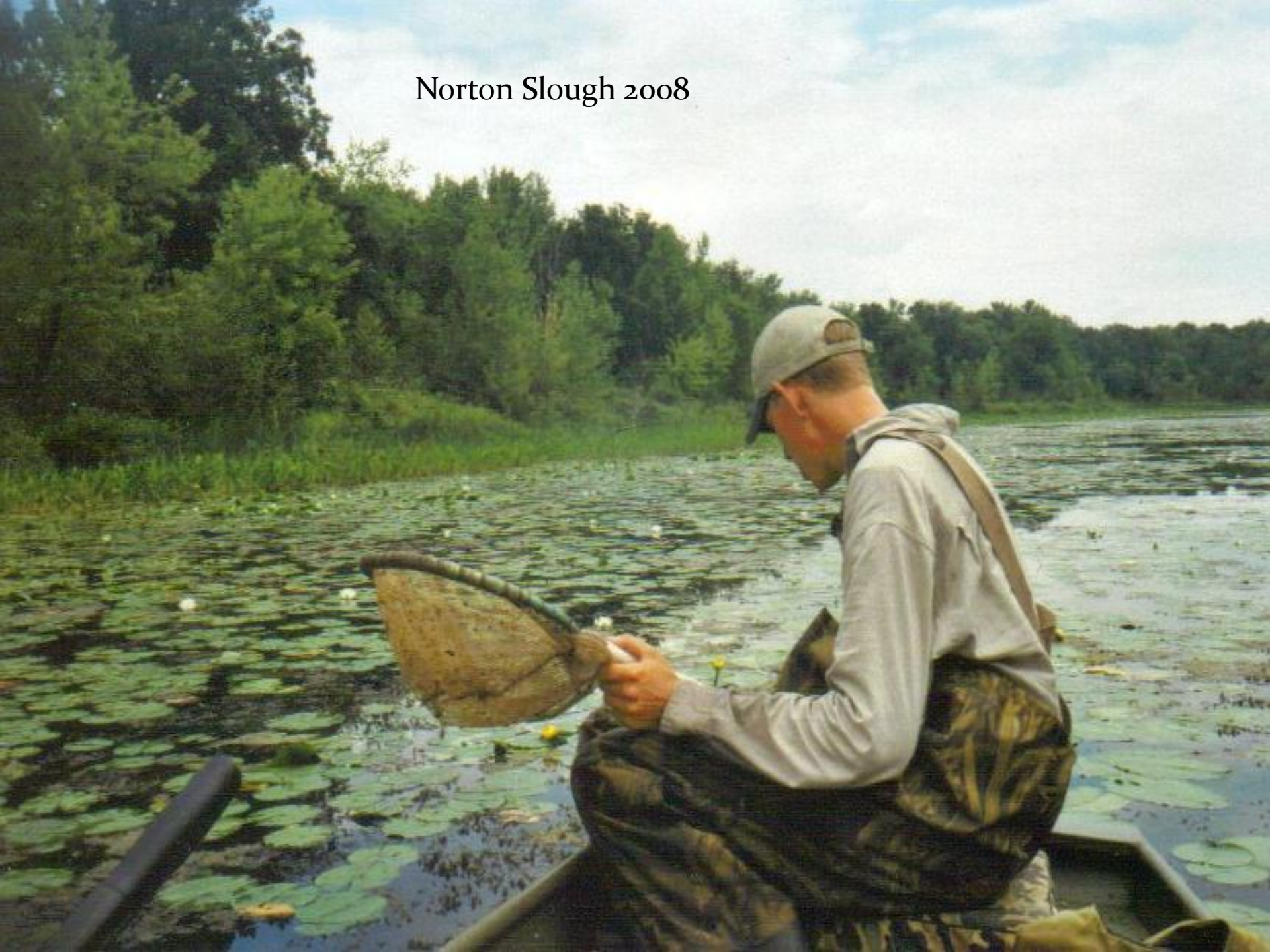


Groundwater Contamination Susceptibility in Wisconsin

Spring Green area
groundwater contamination
score = 49.76
> 30 = HIGHLY Susceptible

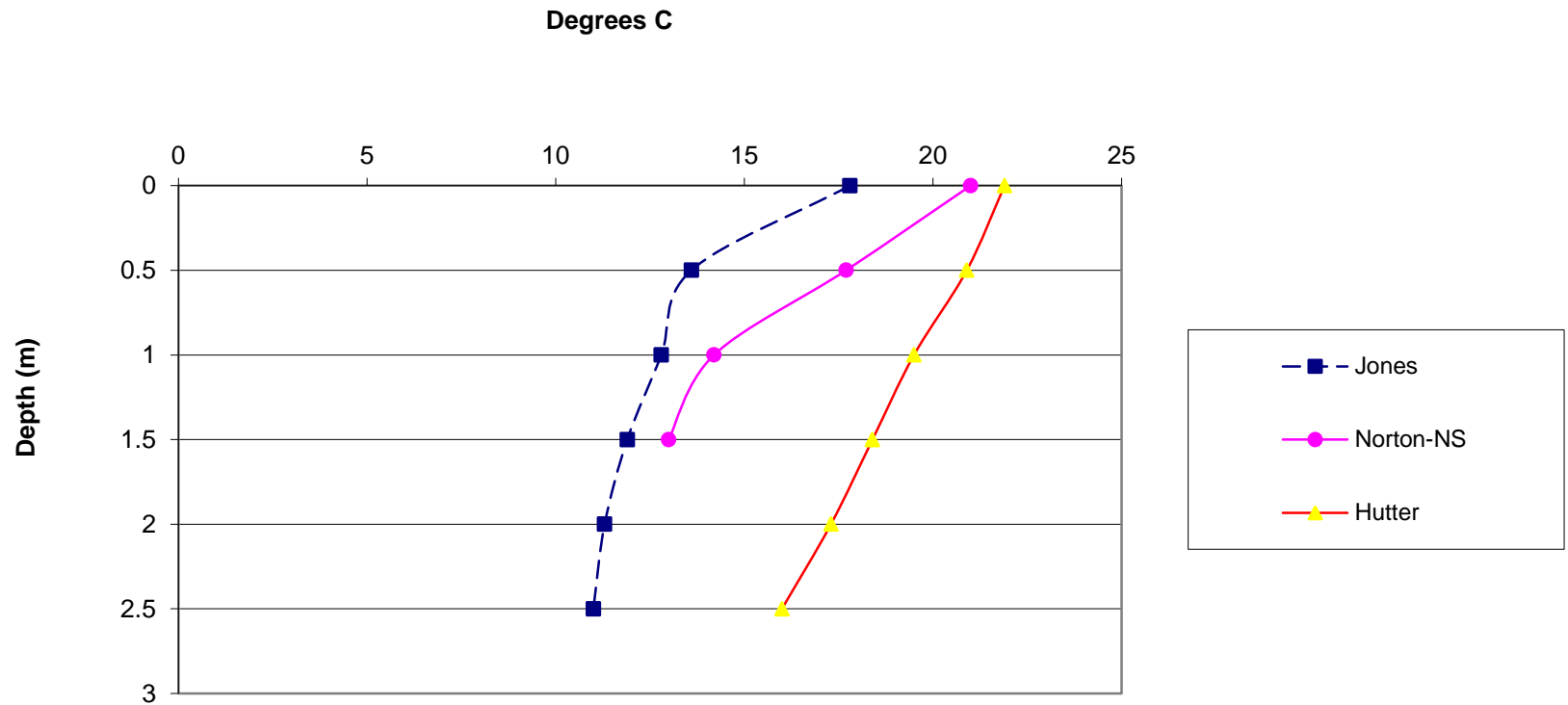


Norton Slough 2008



Dynamic Floodplain Aquifer

August Temperature Profiles



Norton Slough 2011





Pirate perch
(*Aphredoderus sayanus*)

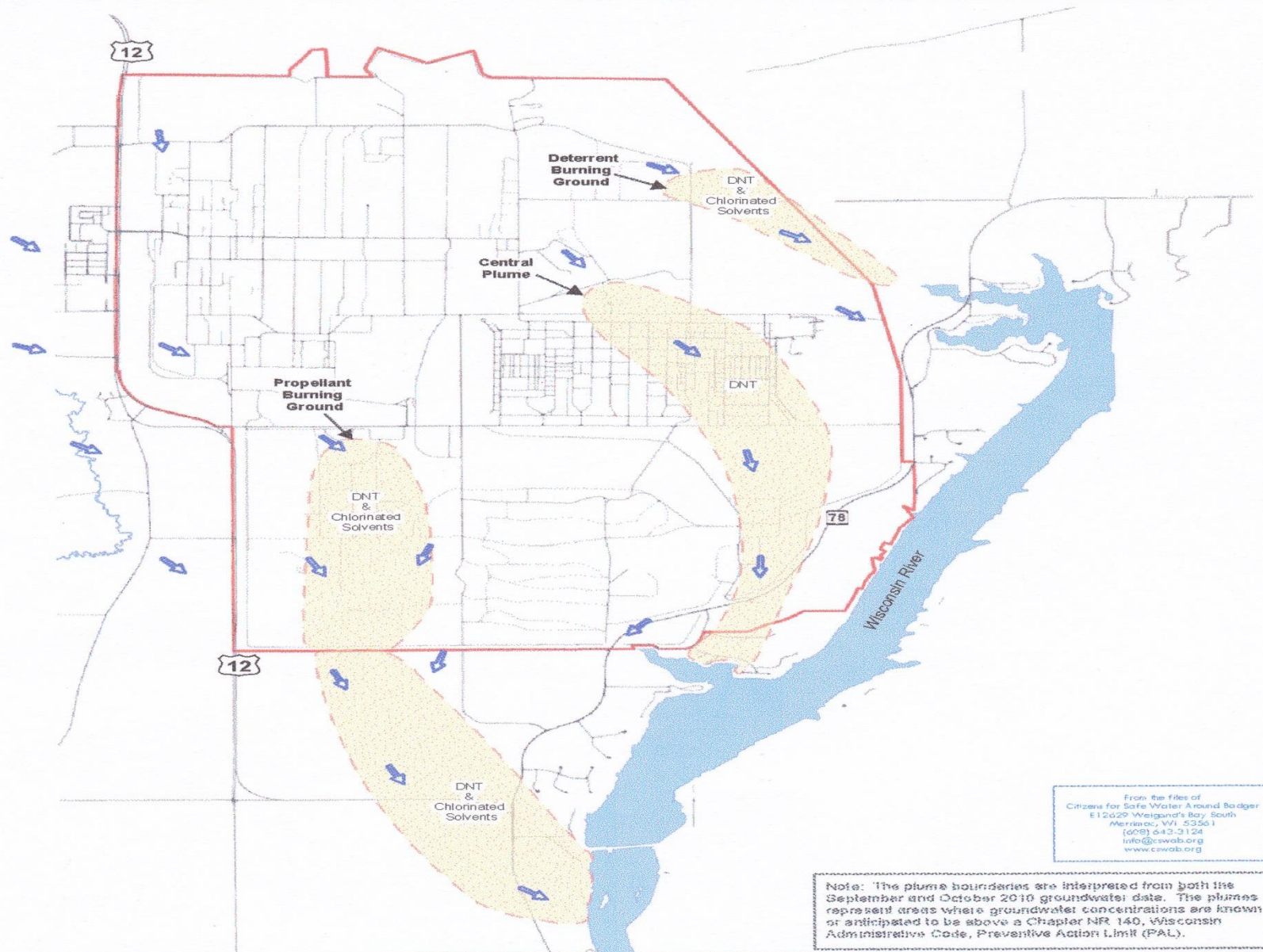


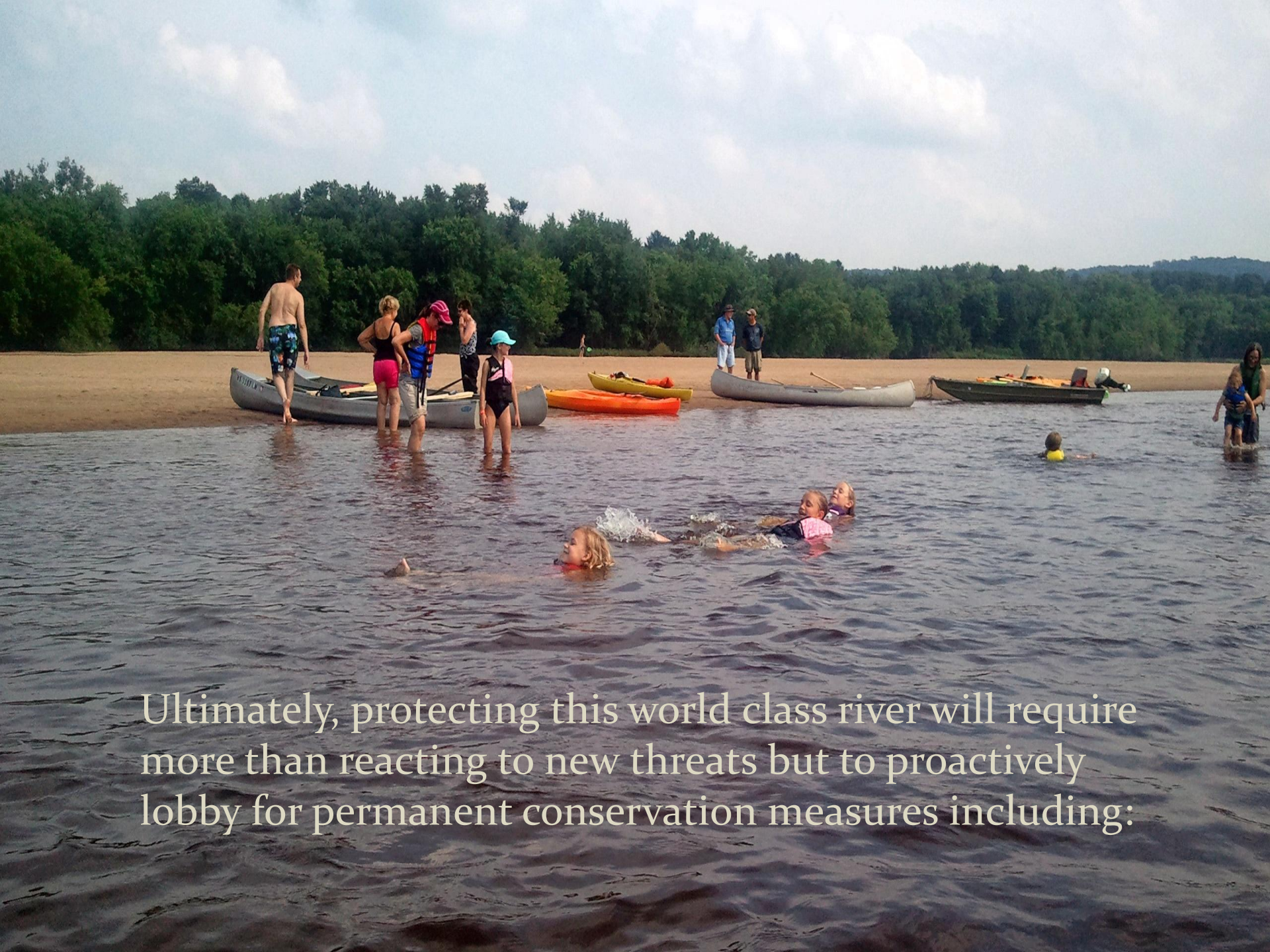
Starhead topminnow
(*Fundulus dispar*)
Endangered



Mud Darter (*Etheostoma asprigene*)

Badger Army Ammunitions Plant





Ultimately, protecting this world class river will require more than reacting to new threats but to proactively lobby for permanent conservation measures including:

PROACTIVE RIVER ADVOCACY

- Reclassify Lower Wisconsin River from ERW to ORW as originally intended in 1989
- Restore annual State Stewardship Funding
- Use State Stewardship Funding to establish conservation buffers around cut-off channel oxbows and other environmentally sensitive areas
- Implement AIS Strategic Plan with River Alliance and WDNR